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10/593,701	09/19/2006	Wai-Kuen Lui	865-B-PCT-US	3093
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/593,701

**Applicant(s)**

LUI ET AL.

**Examiner**

HAO D. MAI

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 May 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 22-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 22-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SG/US)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 22-41 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 22, 31, and 35, each recites "bent about 90 degrees to the right or to the left". There is no reference point from which the flexible means, flexible elbow, and/or the tapered end, are bending. Thus, it is unclear and indefinite as to or from what the flexible means, flexible elbow, and/or tapered end are forming 90 degrees; and it is also unclear and indefinite as far as what exactly are the left and the right directions.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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**4. Claim 22 is rejected under 35 U.S.C. 102(b) as being anticipated by Rabinowitz (4,683,875).**

Rabinowitz discloses a dental apparatus 10 comprising: an element 18 capable of cleaning teeth; an elongated element 22 capable of being handle; and a flexible means of integral hinge 20 between the teeth-cleaning means 18 and elongated handling means 22. The flexible means 20 is pliable that it is capable of bending 90 degrees to the right or to the left (Fig. 1).

**5. Claims 22-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Chodorow (6,065,479).**

**Regarding claim 22,** Chodorow discloses a dental hygiene apparatus 10, comprising: a teeth cleaning means 12; an elongated handling means 16; and a flexible means 26a between the teeth-cleaning means 12 and the handling means 16 (Fig. 1). The flexible means 26a is integral with the teeth-cleaning and handling means, and the flexible means 26a is pliable so that it can be bent about 90 degrees to the right or to the left (Figs. 1, 6, 8; column 4 lines 29-33). **As to claims 23-25,** the teeth cleaning means 10 is shown to comprise: arms 18a and 18b securing a length of interdental material 20 of dental floss; and handling means 16 having a tapered portion at one end.

**6. Claims 22-27, and 31-38, are rejected under 35 U.S.C. 102(e) as being anticipated by Ding et al. (2004/0134512).**

**Regarding claim 22,** Ding et al. disclose a dental hygiene apparatus 10 comprising: a teeth-cleaning means 1; an elongated handling means 2; and a flexible means/elbow 4 between the teeth-cleaning means 1 and the handling means 2. The flexible means/elbow 4 is integral

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with the teeth-cleaning means and the handling means, and is pliable in that it is capable of being bent about 90 degrees to the right or to the left (Figs. 1-2).

**As to claims 23-27**, Figure 1 shows the teeth cleaning means 10 comprising arms 1a and 1b securing a length of interdental material of dental floss; Figures 9-11 show the handling means 2 having a tapered portion being chisel-shaped or pointed at one end of the handling means; and Figure 1 shows the locking mechanism 3/6 allowing the teeth-cleaning means 1 adhering to a new position after flex adjustment at the flexible means 4.

**Regarding claims 31-34**, Ding et al. disclose all the claimed elements as detailed above with respect to claims 22-26. **As to claim 35**, note that the whole elongated handling means 2 including the tapering pointed end portion (Fig. 9) is pliable, in that the handling means as a whole is capable of bending 90 degrees to the right or to the left relative to the teeth-cleaning means 1. **As to claim 36-38**, Figures 7-8 shows the handling means 2 comprising grooves or ridges 2a; the apparatus 10, in whole or in part, is disclosed to be constructed of plastic (paragraph 23), which is inherently a thermoplastic resin; and the locking mechanism 3/6 allows the teeth-cleaning means 1 to adhere to a new position after flex adjustment at the flexible means 4 (Figs. 1-2).

7. **Claims 22-24, 27, 31-32, and 37-38, are rejected under 35 U.S.C. 102(b) as being anticipated by Yasumoto (4,005,721)**

**Regarding claim 22**, Yasumoto discloses a dental hygiene apparatus (refer to Figs. 3A - 3B) comprising: a teeth-cleaning means 12; an elongated handling means 10; and a flexible means/elbow comprising tab 29, detent 25, and indentations 25a, between the teeth-cleaning means and the handling means. Note that "integral" can be interpreted as "pertaining to, or belong as part of a whole, or constituent", as defined by [www.dictionary.com](http://www.dictionary.com). The flexible

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means/elbow 29/25/25a is shown to be integral with, i.e. belong as part of a whole, the teeth-cleaning means and the handling means, and is pliable in that it is capable of being bent about 90 degrees to the right or to the left (Figs. 3A - 3B; column 4 line 56 – column 5 line 10). **As to claims 23-24**, the teeth cleaning means 12 is shown to comprise arms 27 securing a length of interdental material/floss 14.

**Regarding claim 31-32**, Yasumoto discloses all the claimed elements as detailed above with respect to claims 22-24. **As to claims 27 and 38**, the mechanism of detents 25 and indentation 25a allow the teeth-cleaning means 12 to adhere to a new position after flex adjustment at the flexible means. **As to claim 37**, the apparatus is disclosed to be made of plastic or nylon (column 7 lines 24-30), which are inherently thermoplastic resin.

#### ***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. **Claims 28-30 and 39-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ding et al. (2004/0134512) in view of Gordon (5184719).**

Ding et al. disclose the invention substantially as claimed. However, Ding et al fail to disclose a guarding means for preventing a user from using said apparatus. Gordon discloses a dental hygiene apparatus having a guarding means of package 21 capable of preventing a user from using the teeth-cleaning means/toothbrush 12 (Fig. 1). Package 21 comprises a locking device (the perimeter seal) that fits into a mating recess on the teeth-cleaning means; note the

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inating recess being the tapering recessed neck part of toothbrush head 12 where package's perimeter seal wraps around (Fig. 1). The guarding means/package 21 comprise a thin material that securely covers the teeth-cleaning means 12 and cannot be removed without destruction of said material. It would have been obvious to one having ordinary skill in the art at the time the invention was made to include such package as a guarding means to Ding et al. in order to prevent tampering and maintain the device clean and free of contamination prior to usage

**10. Claims 25-26 and 33-35 are rejected under 35 U.S.C. 103(a) as being unpatentable Yasumoto (4,005,721) in view of Neves (6102051).**

**As to claims 25-26 and 33-34,** Yasumoto discloses the invention substantially as claimed except for the elongated handling means comprising a chisel-shaped or pointed tapered portion at one end. Neves discloses a dental hygiene apparatus 10 comprising a tapered portion 18 being chisel-shaped and pointed at one end of the apparatus' elongated handle 11 (Fig. 1). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Yasumoto by including a chisel-shaped or pointed tapered end at one end of the handle so that the pointed end can be used to scrape out hard plaque on the teeth.

**As to claim 35,** the whole elongated handle 50 as disclosed by Yasumoto and modified by Neves to include a tapered end, is pliable in that the handle as a whole can be bent at about 90 degrees to the right or to the left relative to the teeth-cleaning means 10 via flexible means of ball 30 and socket 90.

**11. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable Yasumoto (4,005,721) in view of Halm (5052071).**

Yasumoto discloses the invention substantially as claimed except for the ridges or grooves on the elongated handle. Halm discloses a dental hygiene apparatus comprising an elongated handle 14 having ridges and/or grooves 26 (Fig. 1). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Yasumoto by including ridges and/or grooves on the elongated handle in order to establish an easy and secure grip of the handle, preventing slippage of the apparatus from the user's grasp.

**12. Claims 28-30 and 39-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yasumoto (4,005,721) in view of Gordon (5184719).**

Yasumoto discloses the invention substantially as claimed. However, Yasumoto fails to disclose a guarding means for preventing a user from using said apparatus. Gordon discloses a dental hygiene apparatus having a guarding means of package 21 capable of preventing a user from using the teeth-cleaning means/toothbrush 12 (Fig. 1). Package 21 comprises a locking device (the perimeter seal) that fits into a mating recess on the teeth-cleaning means; note the mating recess being the tapering recessed neck part of toothbrush head 12 where package's perimeter seal wraps around (Fig. 1). The guarding means/package 21 comprise a thin material that securely covers the teeth-cleaning means 12 and cannot be removed without destruction of said material. It would have been obvious to one having ordinary skill in the art at the time the invention was made to include such package as a guarding means to Yasumoto's device in order to prevent tampering and maintain the device clean and free of contamination prior to usage.



***Response to Arguments***

13. Applicant's arguments filed 05/14/2008 have been fully considered but they are not persuasive and/or moot in view of the new ground(s) of rejection.

***Conclusion***

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HAO D. MAI whose telephone number is (571)270-3002. The examiner can normally be reached on Monday-Friday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cris Rodriguez can be reached on (571) 272-4964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

16. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/H. D. M./  
Examiner, Art Unit 3732

**/John J Wilson/  
Primary Examiner, Art Unit 3732**